14 Pin DIP 5 Tap Low-Profile TTL Compatible Active Delay Lines

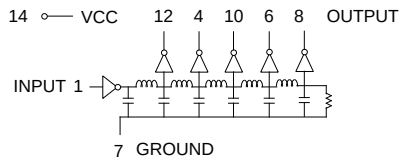
TAP DELAYS ±5% or ±2 nS†	TOTAL DELAYS ±5% or ±2 nS†	PART NUMBER	TAP DELAYS ±5% or ±2 nS†	TOTAL DELAYS ±5% or ±2 nS†	PART NUMBER
5, 10, 15, 20	25	EP9300	80, 160, 240, 320	400	EP9308
6, 12, 18, 24	30	EP9313	84, 168, 252, 336	420	EP9318
7, 14, 21, 28	35	EP9314	88, 176, 264, 352	440	EP9322
8, 16, 24, 32	40	EP9315	90, 180, 270, 360	450	EP9309
9, 18, 27, 36	45	EP9316	94, 188, 282, 376	470	EP9323
10, 20, 30, 40	50	EP9301	100, 200, 300, 400	500	EP9310
12, 24, 36, 48	60	EP9311	110, 220, 330, 440	550	EP9330
15, 30, 45, 60	75	EP9317	120, 240, 360, 480	600	EP9324
20, 40, 60, 80	100	EP9302	130, 260, 390, 520	650	EP9331
25, 50, 75, 100	125	EP9319	140, 280, 420, 560	700	EP9325
30, 60, 90, 120	150	EP9303	150, 300, 450, 600	750	EP9329
35, 70, 105, 140	175	EP9320	160, 320, 480, 640	800	EP9326
40, 80, 120, 160	200	EP9304	170, 340, 510, 680	850	EP9332
45, 90, 135, 180	225	EP9321	180, 360, 540, 720	900	EP9327
50, 100, 150, 200	250	EP9305	190, 380, 570, 760	950	EP9333
60, 120, 180, 240	300	EP9306	200, 400, 600, 800	1000	EP9328
70, 140, 210, 280	350	EP9307			

†Whichever is greater. *Delay times referenced from input to leading edges at 25°C, 5.0V, with no load.*

DC Electrical Characteristics

	Parameter	Test Conditions	Min	Max	Unit
V_{OH}	High-Level Output Voltage	V_{CC} = min. V_{IL} = max. I_{OH} = max	2.7		V
V_{OL}	Low-Level Output Voltage	V_{CC} = min. V_{IH} = min. I_{OL} = max		0.5	V
V_{IK}	Input Clamp Voltage	V_{CC} = min. I_I = I_{IK}		-1.2	V
I_{IH}	High-Level Input Current	V_{CC} = max. V_{IN} = 2.7V		50	µA
		V_{CC} = max. V_{IN} = 5.25V		1.0	mA
I_{IL}	Low-Level Input Current	V_{CC} = max. V_{IN} = 0.5V		-2	mA
I_{OS}	Short Circuit Output Current	V_{CC} = max. V_{OUT} = 0. (One output at a time)	-40	-100	mA
I_{CCH}	High-Level Supply Current	V_{CC} = max. V_{IN} = OPEN		75	mA
I_{CCL}	Low-Level Supply Current	V_{CC} = max. V_{IN} = 0		75	mA
T_{RO}	Output Rise Time	Td ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
		Td > 500 nS		5	nS
N_H	Fanout High-Level Output	V_{CC} = max. V_{OH} = 2.7V		20 TTL LOAD	
N_L	Fanout Low-Level Output	V_{CC} = max. V_{OL} = 0.5V		10 TTL LOAD	

Schematic



Recommended Operating Conditions

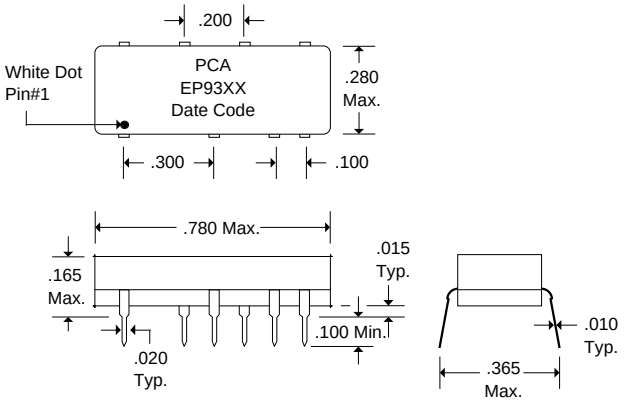
		Min	Max	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T_A	Operating Free-Air Temperature	-55	+125	°C

**These two values are inter-dependent.*

Input Pulse Test Conditions @ 25° C

			Unit
E_{IN}	Pulse Input Voltage	3.2	Volts
P_W	Pulse Width % of Total Delay	110	%
T_{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
P_{RR}	Pulse Repetition Rate @ Td ≤ 200 nS	1.0	MHz
	Pulse Repetition Rate @ Td > 200 nS	100	KHz
V_{CC}	Supply Voltage	5.0	Volts

Package Dimensions



DSD93XX Rev. A 2/5/96

QAF-CSO1 Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches
Tolerances:
Fractional = ± 1/32
.XX = ± .030 .XXX = ± .010

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